

The Effect of Pores on the Effusion of Hydrogen  
from Iron at Room Temperature, by G. Lange.  
GERMAN, per, Eisenhüttenwesen, Vol 40, Aug 1969,  
pp 635-639.  
C. E. Trans. 5466D

Sci-Chem  
Dec 70

Determination of the Tensile Strength of  
Sintered Metals by Means of Ultrasonic Measure-  
ments, by D. Peil.

GERMAN, Ger, Archiv Eisenhüttenwesen, Vol 40,  
No 8, 1969, pp 647-650.

AB 7927

sci/ materials  
nov 59

395,435

Operational Experience in the Determination of  
Oxygen and Nitrogen Contents of Steel  
During Melting, by P. Konig,  
GERMAN, per. Arch Eisenh., Vol 40, No 9, 1962,  
pp 681-684.  
DISI 9950

Aug 72

Aluminium Oxide and Mollite as Solid Electrolytes in Oxygen Measuring Cells, by W.A. Fischer and D. Janke,  
GERMAN, per. Arch. Eisenh., Vol 40, No 9,  
1969, pp 707-716.  
BISI 8311

He d-4 (BNWL-11-72) 5 CARBON ACTIVITY AND SOLUBILITY  
IN A STAINLESS CHROMIUM-NICKEL STEEL WITH ABOUT 18  
PERCENT Cr AND 9 PERCENT Ni. 6 Tama, Hanus; Groebner,  
Pavel; Loebl, Karel. 10 Translated for Battelle Pacific Northwest  
Labs., Richland, Wash., from 15 Arch. Eisenhuettenw.; 40: No. 9,  
727-31 (1969). 26 14p. 24 Dep. NTIS.

26 metallurgy; translations 27 11F

28 MN-25 29 P NSA

C.E. TR-5635

Calculation of the Coefficient of Heat Transition  
for Hot-Rolling and Forging, by O. Pawelski.  
GERMAN, per: Arch Eisenh., Vol 40, Oct 1969,  
pp 821-827.  
BISI 7939

Sci-Mat:  
Oct 70

Atomic Absorption Spectrophotometric Analysis of  
Oxides and Carbides Separated from Steel,  
by K. H. Schuber and M. Hilsche,  
GERMANY, publ. Archiv Eisenhüttenwesen, Vol 40, No 11,  
1969. 701-813  
HB 8141

Sci/Mint  
May 70

Equilibria Between Molten Iron and Saturated Slags  
of the System  $\text{CaO-FeO-MnO-SiO}_2$  at 1600°C Taking  
Account of the Repartition of Sulphur, by E. Gorl.  
GERMAN, per, Arch Eisen, Vol 40, 1969, pp 959-967.  
\*BISI 8309

Sci-Mnt  
June 70

Experience with an Electric Arc Remelting Furnace  
[For Laboratory Use], by P. Konig,  
GERMAN, part. Archiv Eisenhüttenwesen, Vol 40, No 12,  
1969,  
HB 8137

Sci/Mat  
May 70

Study of the Equilibrium Aspects of the Solid  
Phase in the System  $\text{CaO}-\text{CaF}_2-\text{P}_2\text{O}_5$ , by  
G. H. P. et al.  
Canad. J. Chem., Vol. 40, No. 12, 1969,  
pp. 170-181.  
EIKI 1107

sci/mtt  
Feb 71

Rapid Determination of Permeability of  
[Steel] Sheet to Hydrogen, by P. Konig,  
GERMAN, per. Archiv. F.D. Eisenhüttenwesen,  
Vol 39, No 12, 1969, pp 991-992.  
HB 8138

Sci/Mat  
Feb 71

Experiences with Operation of an Electric Arc  
Smelting Furnace, by P. Koenig, et al  
GERMAN, pers. Arch. Electr., Vol 40, No 12, 1969,  
pp 993-994,  
\*HB 81.37

Sed/Met:  
Apr 70

Contribution to the Electrometric Determination  
of Manganese, by W. Thomich.

GERMAN, pub, Arch Eisenh, Vol 40, Dec 1969,  
pp 995-996,  
BISL 8154

Sci-Mat  
Jul 70

The Coercive Field Strength of Pure Iron as  
Well as of Pure Iron-Silicon and Iron-Aluminium  
Alloys as Dependent on the Melting Process  
and on Heat Treatment, by A. Hoffmann,  
GERMAN, per. Arch. Eisenh., Vol 40, No 12, 1969,  
pp 999-1003.  
BISI 8764

Jul 71

Small number of items by E. R. Thompson  
in connection with E. R. Thompson  
CIVILIAN, 2nd, 1970, Vol 41, No 1,  
1970.  
ED 5002

Ref/Arch  
May 10

Reference is made to Report in the System Code-2102  
by J. Edgar Hoover  
dated 10/1/70, and dated 10/1/70, Vol 41, No 1, Jan 1970,  
pp 13-14.  
END PAGE

10/1/70  
JED

Calculation of Internal Stresses in Cold-Drawn  
Wires by Means of Functions of Dimensionless  
Characteristic Values, by H. Buehler, et al.  
GERMAN, per, Archiv fuer das Eisenhuettenwesen,  
Vol 41, No 1, 1970, pp 19-23.  
NFO 71-4647-11F

Feb 72

Adaption of Emission Spectrometric Analysis  
of Rapid Flow of Data, by K. H. Koch, and  
K. Orls,  
GERMAN, per. Archiv Eisenh., Vol 41, No 1,  
1970, pp 25-28.  
HB 8148

Nov 71



E. Kohlhaas

Quantitative Analysis of Oxygen Compounds by  
Means of the Electronbeam Microprobe.  
GERMAN, per, Archiv fuer das Eisenhuettenwesen,  
Vol 41, No 1, 1970, pp 97--101  
NID 72-12899-11F  
HBC 81 2,

sept 72

Investigations into the Relation Between the  
Ultrasonic Scatter in the Rayleigh Range and  
the Structure of Low Alloy CrMo Steels,  
by J. Pirs,  
GERMAN, per. Arch. Eisenh., Vol 41, Jan.,  
1970, pp 103-109.  
BISI 9524

Nov 71

**Regulation and Kinetics of Amine Precipitation  
in the System: Iron-Diglycyl-Aluminum at 1600° C,  
by L. Schuch, et al.  
J. Polym. Sci., Part A: Polym. Chem., Vol. 41, 1970, pp 131-  
138  
INT 1197**

**ext. int  
1197**

Production Control in a Basic Oxygen LD-AC  
Plant, by F. Kneig,  
CHIMIA, par. Archiv Eisenhüttenwesen, Vol 41,  
No 1, 1970, pp 139-142.  
HB 8170

Sci/Int  
Sep 70

B. Weiss

*The dislocation structure of alternately stressed  
Austenitic steels. 11 pp.*

GERMAN, per, Arch. Eisenhüttenw., Vol 41, No 2, 1970,  
pp 155-168.

NASA TR F 14, 287

sept 78

Investigation on the Reversible Temper  
Brittleness of Polymers by E. E. Gerasimova and M. Chitil,  
Dokl. Akad. Nauk SSSR, Vol 41, No 2,  
1978, pp 165-171.  
RISI 870

Sci/Int  
Sep 70

Investigation of the Little Starling Tendency  
of Vanishing the Great Commercial Steels Taking  
into Account Their Industrial Sampling Behavior  
in the K. H. Lange, by E. Martin.

GERMAN, pp. 183-193, Vol. 41, Feb 1970,  
pp 183-193.

HISE 0077

Sci-Mat  
Oct 70

Investigations on the Dissolution of Nitrogen  
in Solids of Stainless Steel with Chromium,  
Manganese, Nickel and Nitrogen as Alloying  
Elements, by D. Goss,  
GEBR. Arch. Wienh., Feb., 1970,  
pp 185-194,  
BIBL 8398

Sci/Mat

Page 74

Desulfurization During the Blowing of Low-  
Phosphorus Hot Metal with Pure Oxygen in  
Relation to the Slag Composition,  
by F. Benzenhofer and P. G. Oberhauser,  
GIBBON, J. H. Archiv Eisenhüttenwesen, Vol 41,  
No 3, 1970, pp 271-275.  
HB 8170

Sci/Int

Chem 770

Automatic Microscopic Analysis - A Further Step  
in the Development of Steelplant Laboratories,  
by P. Kling.  
Chemist, P. H. Arch. Research, Vol 41, Mar 1970,  
pp 217-220.  
\*SEE 0190

Sci-Int  
Vol 30

Contribution to the Creep Rupture Strength of  
Chromium-Molybdenum-Vanadium Steels for Turbine  
Manufacture, by C. Florin,  
GERMAN, per. Archiv Eisenhüttenwesen, Vol 41,  
No 3, 1970, pp 231-236.  
HB 8665

Mar 72

On the Causes of the Deformation of the  
Edges of Cold-Rolled Thin Strip,  
G. Panselaci and G. Belling,  
CERN, par. Arch. Sci., Vol 41, 1970,  
pp 249-254.  
EISI 8611

Sci/Mat  
Jan 71

Effect of Nonmetallic Inclusions on the  
Mechanical Properties of Ck. 45 Steel, by  
W. Kralj.  
Glasnik, Inst. Arch. Biscak., Mar., 1970,  
pp 257-271.  
BIBI 0370

Mar 71.

Mass Transfer Between Gases and Liquids with Natural  
Convection 1. - Theory, by K. W. Lange,  
GERMAN, pp. Arch. Wissch., Vol 41, No 3, 1970,  
pp 279-284  
BISI 8794

June 71.

Propagation, Reflection, and Limitations  
of Acoustic Wave Determination by Ultrasonic Atten-  
uation Measurement, by D. Smith, E. Martin.  
JOURNAL, INT. J. OF PHYS. 1970, PP 285-291.  
DB 0036

not/inst  
non 70

Material Transfer Between Gases and Liquids  
in Natural Convection II - Examination of the  
theory by experiments, and conclusions,  
by K. W. Lange,  
GERMAN, par. Arch. Eisenh., Vol 41, Apr. 1970,  
pp 315-319,  
BISI 8795

Jul 71

Exchange of Matter Between Ascending Calotte-  
Shaped Bubbles and the Elements Dissolved  
in Aqueous Media, by M. Ohji,  
GHEMAB, par. Arch Eisenh., Vol 41, No 4,  
1970, pp 321-331.  
BISI B492

Sci/Mat  
Feb 71.

Research on the Relationship Between the Causes and  
the Appearance of Problems in Filled Free-Output  
Study by E. J. Fild, et al.  
GSA, Inc., 1000 15th St., N.W., Wash., D.C. 20005  
Vol 21, Apr 1970,  
pp 1-30.  
REF 530

not first  
Jan 71

Carbon and Graphite Determination of the Carbon and  
Nitrogen Content of Graphite by F. Koch, H. Lamm.  
ANAL. CHEM. 1971, 43, 127-131.  
HB 4163

on file  
may 78

High-Frequency Melting of Chips to Obtain Solid  
Samples for Spectrometer and X-Ray Fluores-  
cence Analysis, by J. Bruch and A. Wutschel,  
GERMAN, per. Arch. Eisenh., Vol 41, May,  
1970, pp 433-437.  
BISI 8766

Redox Stabilization and Precipitation in Iron-  
Copper Alloys, by E. Kroyer,  
J. Kroyer, Arch. Eisenh., Vol 41, May,  
1970, pp 439-443.  
BISI B690

Doc/Int  
Jan 71

Reduction of Fire-Clay Bricks in Fe-C Melts,  
by H. Maass and H. Abratis,  
GERMAN, Proc. Arch. Eisenh., Vol 41, No 5, 1970,  
pp 483-487.  
BISI 8708

Journal of Library Science and Technology  
Vol. 1, No. 7, 1970,  
pp. 37-40.  
ISSN 0045

Sci-Stat  
Oct 70

The Robertson Crack-Arresting Temperature as  
a Characteristic of Fracture Behavior of  
Steels, by H. D. Bechert,  
GERMAN, Archiv Eisenhüttenw., Vol 41,  
No 7, 1970, pp 649-652.  
HB 8247

Calculation of Roll-Deformation in a Four-High  
Stand, by C. Guillot,  
GERMAN, per. Arch. Eisenh., Vol 41, No 7, 1970,  
pp 653-660,  
BISI 8813

June 71

The Reversible Nature of Solid Metal/Metallic Oxide  
Electrode Reference Potentials in Oxygen  
Measuring Cells, by W. A. Fischer and  
G. B. Fisher,  
J. Electrochem. Soc., July 1970, pp 661-673.

not Aut  
Jan 71

Nucleation of Oxides in Molten Steel - Homogene-  
ously or Heterogeneously? by J. Ptschke and  
M. G. Froberg,  
GERMAN, per. Arch. Eisenh., = Vol 41, Aug., 1970,  
pp 723-729.  
BISI 9153

Jul 71

*The Effect of Temperature and Time on the Fixing of  
Nitrogen by Niobium in Low Carbon Iron at Temperatures  
Between 450 and 800°C, by Karl-Heinz Sauer,  
Gerdhard Neumann. 9 pp.  
GIBBON, p. 1, Archiv für Gas Eisenhüttenwesen, No 8, 1970  
pp 741-747  
AIR/PTD-EL-23-202-71*

**DISTRIBUTION LIMITED TO U.S. GOV'T AGENCIES ONLY;  
COPYRIGHT INFORMATION**

aug 71

Occurrence and Removal of Special Carbide Segregations  
in Tool Steels, by W. Peter,  
GERMAN, Ber. Arch. Eisenh., Vol. 41, Aug., 1970,  
pp 748-756.  
EISI 8191

June 71

Digital Computer Programme for Determination  
of Rolling and Roll Temperatures, by  
H. G. Lautmann and G. Schafer,  
GERMAN, per. Arch. Eisenh., Vol 41, 1970,  
pp 789-795.  
BISI 9074

June 71

Metallographic Examination of Iron-Chromium-Copper Alloys Produced by Powder Metallurgical Process, by M. Ahmed and P. Thummler, GERMAN, pub. Archiv Eisenhüttenwesen, Vol 41, No 8, 1970, pp 797-803.  
HB 8269

On the Reduction of Iron (II) Oxide Containing  
Slags by Coke and Graphite, by H.P. Beer,  
GERMAN, per. Arch. Eisenh., Vol 41, No 8, 1970,  
pp 805-810,  
BISI 8826

Determination of Calibration Functions for the Optical  
Emission Spectral Analysis of Steel by Multiple Regres-  
sion Calculations', by H. Holler,  
GERMAN, per. Arch. Eisenh., Vol 41, Aug., 1970,  
pp 811-816.  
BTBT 9101

June 71

A. Kirsch

Creep Strength and Structure of the Steel 10 Cr Mo  
910.

GERMAN, Her, Archiv fuer das Eisenhuettenwesen,  
Vol 41, 1970, pp 835-840.

NTC 72-1866-11F

Nov 72

Contribution to the Separation of Carbides in  
Tungsten Steels, by W. Koch, & J. Dittman,  
GERMAN, per. Arch Eisenh, Vol 41, Sep., 1970,  
pp 917-921.  
BISI 9344

Sep 71

Effect of Solidification Rate on Microsegregation  
and Interdendritic Precipitation of  
Manganese Sulphide Inclusions in a Steel Con-  
taining Manganese and Carbon, by K. Schwerdt-  
feger,  
GERMAN, per. Arch. Eisenh., No 9, 1970,  
pp 923-937.  
BISI 8938

BNWL-tr-73) CARBON ACTIVITY AND SOLUBILITY  
IN AUSTENITIC CHROMIUM-NICKEL STEELS WITH ABOUT 18  
PERCENT Cr. Tuma, Hanus; Vyklicky, Miloslav; Loebl, Karel.  
Translated for Battelle Pacific Northwest Labs., Richland, Wash.,  
from Arch. Eisenhuettenw.; 41: No. 10, 983-8(1970). 14p. Dep.  
NTIS.

metallurgy; translations 11F

MN-25 P NSA

REVISED CARD

Contribution to the Photometric Determination  
of Low Silicon Contents, by K. H. Sauer  
and H. Keller,  
GERMAN, per. Archiv Eisenh., Vol 41, No 10,  
1970, pp 961-963.  
HB 8494

Nov 71

R. Partram

The influence of a locally variable coefficient of friction on the calculation of the forces in industrial forming processes.

GERMAN, per, Arch. Hisanh, Vol 41, No 10, 1970,

pp 969-973

RISI 9595

may 72

H. Huzanek

M. Wyderko

Magnetite in iron ore sinters.

GERMAN, P., Arch. Eisenh., Vol 41, No 11, 1970,

pp 1017-1022

BISI 9514

may 72

Solid Electrolyte Cells with Gaseous Reference  
Electrodes for Measuring Oxygen Activity in  
Iron Melts, by W.A. Fischer,  
GERMAN, per. Arch. Eisenh., Vol 41, Nov, 1970,  
pp 1027-1033.  
BISI 9414

Feb 72

Contribution to Roll Pass Designing of a Stretch-Reducing Mill, in Particular, for the Production of Seamless Tubes in a Continuous Tube Mill, by K. Neuhoff and H. Biller, GERMAN, per. Arch. Eisenh., Vol 41, No 11, 1970, pp 1047-1053.  
EISI 9077

Jul 71

Measurement of the Rate of Dissolution of Refractories in Steelmaking Slags, by  
F. Bardenheuer and G. Kauder,  
GERMAN, per. Archiv. Eisenhüttenw., Vol 41,  
No 11, 1970, pp 1093-1094.  
HB 8356

Jun 71

A Method for Calculating the Contraction of  
Steel During its Solidification, by  
H.G. Baumann & G. Schafer,  
GERMAN, per. Arch. Eisenh., Vol 41, No 12,  
1970, pp1111-1115.  
BISI 9396

Sep 71

Quantitative Determination of the Elements Boron and  
Nitrogen by Means of the Electron Microprobe,  
by E. Hohlheas and F. Scheiding,

GERMANY, pub. Archiv Eisenhüttenwesen, Vol 41, No 12,  
1970, pp 1127-1130.

HB 8391

NTC-71-16035-07B

June 71.

Improved Practical Methods of Sampling and Determination of the Hydrogen Content of Liquid Steel,  
by T. K. Willmer and K. Zimmermann,  
GERMAN, pers. Archiv Eisenhüttenwesen, Vol 41, No 12,  
1970, pp 1131-1135.  
HB 8390

June 71

The Significance of the Fracture Behaviour of  
High-Strength Steels in Relation to their  
Application, by K. Detert and H.J. Lipp,  
GERMAN, per. Arch Eisenh., Vol 41, Dec., 1970,  
pp 1145-1152.  
BISI 9291

Nov 71

The Equivalence of Hexagonal Phase in Low  
Carbon Austenitic Manganese and Chromium Nickel  
Steels, by H. Schumann,  
GERMAN, per. Arch Eisenh., Vol 41, Dec., 1970,  
pp 1169-1175.  
BISI 9290

Nov 71

Contribution to the Determination of the Heat  
Conduction in Tight Coils of Cold-Rolled Strip  
During Annealing in Pot and Bell-type Furnaces,  
GERMAN, per. Archiv Eisenh., Vol 42, No 1, 1971,  
\*BISI 9477

Aug 71

Oxygen as the Criterion in Assessing the  
Degree of Purity and Resistance to Pitting  
in Anti-Friction Bearing Steel, by W. Luty.  
EUROPEAN, per, Archiv fuer das Eisenhuettenwesen,  
Vol 42, No 1, 1971, pp 49-53.  
NTC-71-14957-11F

Feb 72

Comparison of Different Sampling Methods for  
the Analysis of Hydrogen in Liquid Steel, by  
L. Ebel.  
GERMAN, per, Archiv Eisenhüttenwesen, Vol 42,  
No 2, 1971, pp 95-99.  
HT 8461

Jan 73

Mass Transfer in Discontinuous and Continuous  
Steel Making Processes, by E. Steinmetz and  
J. Kuhn.  
GERMAN, per. Arch Eisenh., Vol 42, No 3,  
1971, pp 157-163.  
BISI 9897

Sep 71

New Investigations into the Aluminium-Oxygen  
Equilibrium in Iron Melts, by L.E. Rohde,  
GERMAN, per. Arch Eisenh., Vol 42, No 3, 1971,  
pp 165-174.  
BISI 9652

June 72

Quantitative Testing of Rolled Products for  
Unweldable Defects and Oxygen Content by  
Means of Neutron-Activation Analysis,  
by C. Thoma,  
GERMAN, per. Archiv Eisenhattenw., Vol 42, No 3  
1971, pp 185-193.  
HB 8476

Sep 71

The Ring-Core Method of Measuring Residual  
Stresses and its Application to Turbine and  
Generator Shafts, by H. Wolf.  
EUROPEAN, per, Archiv für das Eisenhüttenwesen,  
Vol 42, Mar 1971, pp 195-200.  
EISI Trans 9422

HB 8625

Jan 72

On the Kinetics of Oxygen Converter Steelmaking  
by K.W. Lange,  
GERMAN, per. Arch Eisenh., Vol 42, No 4, 1971,  
pp 233-241.  
BISI 9410

Feb 72

Electrochemical Record of the Course of Decarbu-  
rization of Iron Melts, by W.A. Fischer and D.  
Janke,  
GERMAN, per. Arch. Eisenh., Apr., 1971,  
pp 249-255.  
BISI 9416

Sep 71

Temperature Rise of Drawhole Surface During  
the Cold Drawing of Steel Bars at High Speeds,  
by K. Rittmann,  
GERMAN, per. Archiv Eisenhüttenwesen, Vol 42,  
No 4, 1971, pp 265-271.  
HB 8492

Mar 72

Analysis of Carbonitrides for Carbon and Nitro-  
gen with the Macro-Probe, by H. Malissa and  
M. Grassenbauer,  
GERMAN, per. Archiv Eisenhüttenw., Vol 42,  
No 4, 1971, pp 277-281.  
HB 8493

Sep 71

The Metallurgy of the Electro-Slag Remelting  
Process, by H. J. Klingelhofer, and P. Mathis,  
GERMAN, per. Archiv Eisenh. Vol 42, No 5,  
1971, pp 299-306.  
HB 8913

Nov 71

H. Trenkler

A New Method for the Comprehensive Characteriza-  
tion of Iron Ores and Ore Agglomerates.

GERMAN, Archiv fuer das Eisenhuettenwesen,

Vol 42, No 6, 1971, pp 375-383

NTC 72-60107-11F

HP 8540

sept 72

On the Deformation Behaviour of Steel in Flat  
Rolling and in Rolling through a Roll Pass,  
by J. Neuhauss.  
GERMAN, per, Arch. Eisenh., June 1971,  
pp. 391-397.  
EISI 3597

July 72

New Corrosions Concerning the Pretreatment of  
Steel Surfaces, by R. Schoenemann.  
GERMAN, per, Archiv fur das Eisenhüttenwesen, Vol 42,  
No 6, 1971, pp 405-410.  
BIBD 10573

Cct 72

On the Origin of Periodic Segregations  
in 6%V, 5%Mo, 2%V High-Speed Steel,  
by H. P. Klaerner.

GERMANY, per, Archiv fuer das  
Eisenhuettenwesen, Vol 42, 1971,  
pp 421-431.

NTC 72-60013-11F

11/3 8-72

May 72

Changes in the Microstructure of High Temperature Strength Steels Under Creep-Rupture Stress, by F.K. Naumann, GERMAN, per. Archiv Eisenhüttenwesen, Vol 42, No 6, 1971, pp 439-447.  
HB 8573

Mar 72

The Course of Deformation in Solid Sections  
During Hot Rolling in Roll Passes, by  
M. Vater,  
GERMAN, per. Arch Eisenh., July, 1971, pp 459--  
467.  
BISI 9627

Feb 72

E. SCHEER

Fracture of High-Strength Maraging Nickel-Cobalt-Molybdenum Steels. ARCHIV EISENHUTTENW., Volume 42, Number 7, 1971, pp 489-493.  
HB 8592

Feb 73

W. A. FISCHER

The Solidification Structure of Iron, Part II

by W. A. Fischer.

GERMAN, part, Archiv Eisenhuttens, Vol 42, No 8, 1971,

pp 541-549

HB 8601

Nov 7,

P. Holler

On the Automation of Optical Emission Spectrometric  
Analysis in the Steelplant Laboratory, by P. Holler.  
GERMAN, par. Archiv Eisenhüttenwesen, Vol 42, No 8,  
1971, pp 559-564.  
HB 8597

Nov 72